

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
10 November 2005 (10.11.2005)

PCT

(10) International Publication Number  
**WO 2005/106267 A1**

(51) International Patent Classification<sup>7</sup>: **F16C 32/06**, 29/02, 33/10

(74) Agent: **KOBAYASHI, Osamu**; Kawashima Bldg. 2nd Floor, 19-13, Kanayamacho 1-chome, Atsuta-ku, Nagoya-shi, Aichi 456-0002 (JP).

(21) International Application Number:  
**PCT/JP2005/005602**

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(22) International Filing Date: 18 March 2005 (18.03.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2004-133252 28 April 2004 (28.04.2004) JP

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(71) Applicant (for all designated States except US): **TOYODA KOKI KABUSHIKI KAISHA** [JP/JP]; 1, Asahi-machi 1-chome, Kariya-shi, Aichi 448-8652 (JP).

(72) Inventors; and

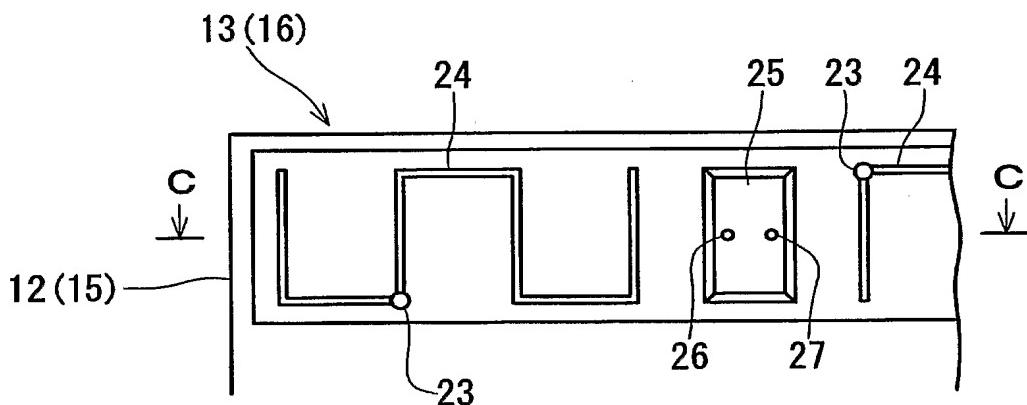
(75) Inventors/Applicants (for US only): **SAITO, Toshiyuki** [JP/JP]; c/o Toyoda Koki Kabushiki Kaisha, 1, Asahi-machi 1-chome, Kariya-shi, Aichi 448-8652 (JP). **SAKEI, Toshikazu** [JP/JP]; c/o Toyoda Koki Kabushiki Kaisha, 1, Asahi-machi 1-chome, Kariya-shi,, Aichi 448-8652 (JP). **ASO, Tomio** [JP/JP]; c/o Toyoda Koki Kabushiki Kaisha, 1, Asahi-machi 1-chome, Kariya-shi,, Aichi 448-8652 (JP). **HAMAJIMA, Youji** [JP/JP]; c/o Toyoda Koki Kabushiki Kaisha, 1, Asahi-machi 1-chome, Kariya-shi,, Aichi 448-8652 (JP).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: SLIDE GUIDING DEVICE



(57) Abstract: A slide guiding device 13 in a machine tool 10 is provided with slide guiding surfaces 21 provided on a bed 11, sliding surfaces 22 provided on a column 12, which is guided on the bed 11 for movement on the same, and movable on the slide guiding surfaces 21, oil grooves 24 each with a first supply hole 23 for supplying lubrication oil to contact surface areas between the sliding surfaces 22 and the slide guiding surfaces 21, and oil pockets 25 formed independently of the oil grooves 24 for retaining the lubrication oil supplied to the contact surface areas between the sliding surfaces 22 and the slide guiding surfaces 21.

WO 2005/106267 A1